

SEQUENCE LISTING

<110> Adamou, John
Choi, Gil

<120> Streptococcus Pneumoniae Proteins and Vaccines

<130> 469201-589

<140>

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<150> US/09/590,991

<151> 2000-06-09

<150> US/60/138,453

<151> 1999-06-10

<160> 8

<170> PatentIn Ver. 2.0

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Forward primer
for PCR amplification of Sp128 genomic sequences

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<210> 2

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Reverse primer
for PCR amplification of Sp128 genomic sequence

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Forward primer
for PCR amplification of Sp130 genomic sequence

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 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: Reverse primer
 for PCR amplification of Spl30 genomic sequence

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27

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 <213> Streptococcus pneumoniae

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 atcatcggtc cagcaggatc tacatcttgg gggccaagaa tagatttact tttaaaaccc 1920
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<210> 6
 <211> 664
 <212> PRT
 <213> Streptococcus pneumoniae

<400> 6

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35 40 45
Ala Val Ile Lys Glu Lys Glu Val Val Ser Lys Asn Pro Val Ile Asp
50 55 60
Asn Asn Thr Ser Asn Glu Glu Ala Lys Ile Lys Glu Glu Asn Ser Asn
65 70 75 80
Lys Ser Gln Gly Asp Tyr Thr Asp Ser Phe Val Asn Lys Asn Thr Glu
85 90 95
Asn Pro Lys Lys Glu Asp Lys Val Val Tyr Ile Ala Glu Phe Lys Asp
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Ser Ser Val Glu Arg Ala Gln Lys Val Gln Pro Met Met Asn His Ala
165 170 175
Arg Lys Glu Ile Gly Val Glu Glu Ala Ile Asp Tyr Leu Lys Ser Ile
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Asp Asp Ala Lys Ala Ser Met Arg Phe Lys Lys Glu Asp Leu Lys Gly
225 230 235 240
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245 250 255
Tyr Tyr Asn Gly Gly Lys Ile Thr Val Glu Lys Tyr Asp Asp Gly Arg
260 265 270
Asp Tyr Phe Asp Pro His Gly Met His Ile Ala Gly Ile Leu Ala Gly
275 280 285
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290 295 300

Ala Pro Asn Ala Gln Ile Phe Ser Tyr Lys Met Tyr Ser Asp Ala Gly
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 325 330 335
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 340 345 350
 Thr Gly Leu Val Gly Glu Lys Tyr Trp Gln Ala Ile Arg Ala Leu Arg
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 Ala Ser Ser Ser Ser Trp Asp Leu Val Ala Asn Asn His Leu Lys Met
 385 390 395 400
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 Lys Ser Lys Ile Thr Thr Asn Glu Asp Gly Thr Lys Ala Pro Ser Lys
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 465 470 475 480
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 485 490 495
 Asp Leu Lys Asn Ala Phe Lys Lys Ala Met Asp Lys Gly Ala Arg Ala
 500 505 510
 Ile Met Val Val Asn Thr Val Asn Tyr Tyr Asn Arg Asp Asn Trp Thr
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 Glu Leu Pro Ala Met Gly Tyr Glu Ala Asp Glu Gly Thr Lys Ser Gln
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 Val Phe Ser Ile Ser Gly Asp Asp Gly Val Lys Leu Trp Asn Met Ile
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 Asn Pro Asp Lys Lys Thr Glu Val Lys Arg Asn Asn Lys Glu Asp Phe
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 Lys Asp Lys Leu Glu Gln Tyr Tyr Pro Ile Asp Met Glu Ser Phe Asn
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Ala Pro Asp Thr Asp Lys Glu Leu Tyr Lys Glu Asp Ile Ile Val Pro
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Ala Gly Ser Thr Ser Trp Gly Pro Arg Ile Asp Leu Leu Leu Lys Pro
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<211> 2319
<212> DNA
<213> Streptococcus pneumoniae

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gacttaaaaga aactcattaa aaagaaatatt agagaagttg atgattttac aagtgaact 240
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acgggagagg taagtgaatt aaaacctcat agggtaactg tgaccattca aaatggaaaa 1920
gaaatgagtt caacgatagt gtcggaagaa gattttattt tacctgttta taagggtgaa 1980
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<210> 8
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 35 40 45
 Arg Asn Ile Ser Thr Ile Arg Asp Phe Glu Asn Lys Asp Leu Lys Lys
 50 55 60
 Leu Ile Lys Lys Lys Phe Arg Glu Val Asp Asp Phe Thr Ser Glu Thr
 65 70 75 80
 Gly Lys Arg Met Glu Glu Tyr Asp Tyr Lys Tyr Asp Asp Lys Gly Asn
 85 90 95
 Ile Ile Ala Tyr Asp Asp Gly Thr Asp Leu Glu Tyr Glu Thr Glu Lys
 100 105 110
 Leu Asp Glu Ile Lys Ser Lys Ile Tyr Gly Val Leu Ser Pro Ser Lys
 115 120 125
 Asp Gly His Phe Glu Ile Leu Gly Lys Ile Ser Asn Val Ser Lys Asn
 130 135 140
 Ala Lys Val Tyr Tyr Gly Asn Asn Tyr Lys Ser Ile Glu Ile Lys Ala
 145 150 155 160
 Thr Lys Tyr Asp Phe His Ser Lys Thr Met Thr Phe Asp Leu Tyr Ala
 165 170 175
 Asn Ile Asn Asp Ile Val Asp Gly Leu Ala Phe Ala Gly Asp Met Arg
 180 185 190
 Leu Phe Val Lys Asp Asn Asp Gln Lys Lys Ala Glu Ile Lys Ile Arg
 195 200 205
 Met Pro Glu Lys Ile Lys Glu Thr Lys Ser Glu Tyr Pro Tyr Val Ser
 210 215 220
 Ser Tyr Gly Asn Val Ile Glu Leu Gly Glu Gly Asp Leu Ser Lys Asn
 225 230 235 240
 Lys Pro Asp Asn Leu Thr Lys Met Glu Ser Gly Lys Ile Tyr Ser Asp
 245 250 255
 Ser Glu Lys Gln Gln Tyr Leu Leu Lys Asp Asn Ile Ile Leu Arg Lys
 260 265 270

Gly Tyr Ala Leu Lys Val Thr Thr Tyr Asn Pro Gly Lys Thr Asp Met
 275 280 285
 Leu Glu Gly Asn Gly Val Tyr Ser Lys Glu Asp Ile Ala Lys Ile Gln
 290 295 300
 Lys Ala Asn Pro Asn Leu Arg Ala Leu Ser Glu Thr Thr Ile Tyr Ala
 305 310 315 320
 Asp Ser Arg Asn Val Glu Asp Gly Arg Ser Thr Gln Ser Val Leu Met
 325 330 335
 Ser Ala Leu Asp Gly Phe Asn Ile Ile Arg Tyr Gln Val Phe Thr Phe
 340 345 350
 Lys Met Asn Asp Lys Gly Glu Ala Ile Asp Lys Asp Gly Asn Leu Val
 355 360 365
 Thr Asp Ser Ser Lys Leu Val Leu Phe Gly Lys Asp Asp Lys Glu Tyr
 370 375 380
 Thr Gly Glu Asp Lys Phe Asn Val Glu Ala Ile Lys Glu Asp Gly Ser
 385 390 395 400
 Met Leu Phe Ile Asp Thr Lys Pro Val Asn Leu Ser Met Asp Lys Asn
 405 410 415
 Tyr Phe Asn Pro Ser Lys Ser Asn Lys Ile Tyr Val Arg Asn Pro Glu
 420 425 430
 Phe Tyr Leu Arg Gly Lys Ile Ser Asp Lys Gly Gly Phe Asn Trp Glu
 435 440 445
 Leu Arg Val Asn Glu Ser Val Val Asp Asn Tyr Leu Ile Tyr Gly Asp
 450 455 460
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 465 470 475 480
 Asp Gly Asp Ile Met Asp Trp Gly Met Lys Asp Tyr Lys Ala Asn Gly
 485 490 495
 Phe Pro Asp Lys Val Thr Asp Met Asp Gly Asn Val Tyr Leu Gln Thr
 500 505 510
 Gly Tyr Ser Asp Leu Asn Ala Lys Ala Val Gly Val His Tyr Gln Phe
 515 520 525
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 Thr Ser Ile Glu Tyr Ala Asp Gly Lys Ser Val Val Phe Asn Ile Asn
 545 550 555 560
 Asp Lys Arg Asn Asn Gly Phe Asp Gly Glu Ile Gln Glu Gln His Ile
 565 570 575
 Tyr Ile Asn Gly Lys Glu Tyr Thr Ser Phe Asn Asp Ile Lys Gln Ile

